

What is claimed is:

1           1. An electrode plate for use in a flat panel display,  
2           comprising a plate and at least one electrode which is formed and  
3           adhered to at least one main surface of the plate using a thin  
4           film formation method or a thick film formation method,  
5           characterized in that

6           of an end area of the electrode at a power supply point and  
7           an end area of the electrode opposite to the end area at the  
8           power supply point, at least the opposite end area of the  
9           electrode is adhered to the main surface of the plate with  
10          stronger adhesion than other areas of the electrode.

1           2. The electrode plate of Claim 1,  
2           wherein the electrode is strip-shaped, and  
3           at least the opposite end area of the electrode is wider than  
4           the other areas of the electrode, so as to be adhered to the main  
5           surface of the plate with stronger adhesion than the other areas  
6           of the electrode.

1           3. The electrode plate of Claim 1,  
2           wherein at least the opposite end area of the electrode is  
3           adhered to the main surface of the plate using an adhesive, so  
4           as to be adhered to the main surface of the plate with stronger

adhesion than the other areas of the electrode.

4. The electrode plate of Claim 1,

wherein at least the opposite end area of the electrode is adhered to part of the main surface of the plate which has been subjected to at least one surface treatment, so as to be adhered to the main surface of the plate with stronger adhesion than the other areas of the electrode.

5. The electrode plate of Claim 4,

wherein the surface treatments are selected from the group consisting of ultraviolet irradiation, plasma irradiation, sandblasting, and thorough cleaning.

6. An electrode plate for use in a flat panel display,

comprising a plate and at least one electrode which is adhered to at least one main surface of the plate, the electrode being made up of (a) a first electrode part which is adhered to the main surface of the plate and (b) a second electrode part which is adhered to the first electrode part so as to be in electrical contact with the first electrode part, characterized in that

of an end area of the second electrode part at a power supply point and an end area of the second electrode part opposite to

the end area at the power supply point, at least the opposite end area of the second electrode part extends beyond the first electrode part and is directly adhered to the main surface of the plate.

7. The electrode plate of Claim 6,  
wherein the plate is a glass plate, and the second electrode part contains Ag.

8. The electrode plate of Claim 7,  
wherein the main surface of the plate to which the electrode is adhered has been coated with a film made of a material selected from the group consisting of silicon oxide and nitrogen oxide.

9. The electrode plate of Claim 6,  
wherein at least the opposite end area of the second electrode part is wider than other areas of the second electrode part.

10. The electrode plate of Claim 6,  
wherein at least the opposite end area of the second electrode part is adhered to the main surface of the plate using

4 an adhesive.

1 11. The electrode plate of Claim 10,  
2 wherein the adhesive contains glass.

1 12. The electrode plate of Claim 6,  
2 wherein the second electrode part contains glass, and  
3 at least the opposite end area of the second electrode part  
4 contains a higher proportion of glass than other areas of the  
5 second electrode part.

1 13. The electrode plate of Claim 6,  
2 wherein at least the opposite end area of the second  
3 electrode part is adhered to part of the main surface of the  
4 plate which has been subjected to at least one surface treatment.

1 14. The electrode plate of Claim 13,  
2 wherein the surface treatments are selected from the group  
3 consisting of ultraviolet irradiation, plasma irradiation,  
4 sandblasting, and cleaning that removes at least organic  
5 substances.

1 15. The electrode plate of Claim 6,

2 wherein the electrode is a display electrode that is made up  
3 of a transparent electrode and a bus line respectively as the  
4 first electrode part and the second electrode part, and

5 the electrode plate is a front panel glass having a plurality  
6 of pairs of display electrodes in a gas discharge panel.

1 16. A gas discharge panel, comprising the front panel glass  
2 of Claim 15 having the plurality of pairs of display  
3 electrodes.

1 17. An electrode plate for use in a flat panel display,  
2 comprising a plate and at least one electrode which is adhered to  
3 at least one main surface of the plate, the electrode being made  
4 up of (a) a first electrode part which is adhered to the main  
5 surface of the plate and (b) a second electrode part which is  
6 adhered to the first electrode part so as to be in electrical  
7 contact with the first electrode part, characterized in that

8 of an end area of the second electrode part at a power supply  
9 point and an end area of the second electrode part opposite to  
10 the end area at the power supply point, at least the opposite end  
11 area of the second electrode part is adhered to the first  
12 electrode part with stronger adhesion than other areas of the  
13 second electrode part.

1           18. The electrode plate of Claim 17,  
2           wherein the plate is a glass plate, and the second electrode  
3           part contains Ag.

1           19. The electrode plate of Claim 18,  
2           wherein the main surface of the plate to which the electrode  
3           is adhered has been coated with a film made of a material  
4           selected from the group consisting of silicon oxide and nitrogen  
5           oxide.

1           20. The electrode plate of Claim 17,  
2           wherein at least the opposite end area of the second  
3           electrode part is wider than the other areas of the second  
4           electrode part, so as to be adhered to the first electrode part  
5           with stronger adhesion than the other areas of the second  
6           electrode part.

1           21. The electrode plate of Claim 17,  
2           wherein at least the opposite end area of the second  
3           electrode part is adhered to the first electrode part using an  
4           adhesive, so as to be adhered to the first electrode part with  
5           stronger adhesion than the other areas of the second electrode

6 part.

1 22. The electrode plate of Claim 21,  
2 wherein the adhesive contains glass.

1 23. The electrode plate of Claim 17,  
2 wherein the second electrode part contains glass, and  
3 at least the opposite end area of the second electrode part  
4 contains a higher proportion of glass than the other areas of the  
5 second electrode part.

1 24. The electrode plate of Claim 17,  
2 wherein the electrode is a display electrode that is made up  
3 of a transparent electrode and a bus line respectively as the  
4 first electrode part and the second electrode part, and  
5 the electrode plate is a front panel glass having a plurality  
6 of pairs of display electrodes in a gas discharge panel.

1 25. A gas discharge panel, comprising the front panel glass  
2 of Claim 24 having the plurality of pairs of display  
3 electrodes.

1 26. An electrode plate for use in a flat panel display,

comprising a plate and at least one electrode which is adhered to at least one main surface of the plate, the electrode being made up of (a) a first electrode part which is adhered to the main surface of the plate and (b) a second electrode part which is adhered to the first electrode part so as to be in electrical contact with the first electrode part, characterized in that

one side area of the second electrode part in a width direction partially or entirely extends beyond the first electrode part and is directly adhered to the main surface of the plate, with stronger adhesion than any of the adhesion of the first electrode part to the main surface of the plate and the adhesion of other areas of the second electrode part to the first electrode part.

27. The electrode plate of Claim 26,

wherein the electrode is a display electrode that is made up of a transparent electrode and a bus line respectively as the first electrode part and the second electrode part, and

the electrode plate is a front panel glass having a plurality of pairs of display electrodes in a gas discharge panel.

28. A gas discharge panel, comprising the front panel glass of Claim 27 having the plurality of pairs of display



3 electrodes.

1 29. An electrode plate manufacturing method for use in a flat  
2 panel display, comprising an electrode forming step for forming  
3 at least one electrode and adhering the electrode to at least one  
4 main surface of a plate using a thin film formation method or a  
5 thick film formation method, characterized in that

6 in the electrode forming step, of an end area of the  
7 electrode at a power supply point and an end area of the  
8 electrode opposite to the end area at the power supply point, at  
9 least the opposite end area of the electrode is adhered to the  
10 main surface of the plate with stronger adhesion than other areas  
11 of the electrode.

1 30. The electrode plate manufacturing method of Claim 29,  
2 wherein at least the opposite end area of the electrode is  
3 adhered to part of the main surface of the plate which has been  
4 subjected to at least one surface treatment.

1 31. The electrode plate manufacturing method of Claim 30,  
2 wherein the surface treatments are selected from the group  
3 consisting of ultraviolet irradiation, plasma irradiation,  
4 sandblasting, and thorough cleaning.

1           32. The electrode plate manufacturing method of Claim 29,  
2           wherein at least the opposite end area of the electrode is  
3           adhered to the main surface of the plate using an adhesive.

1           33. The electrode plate manufacturing method of Claim 29,  
2           wherein the electrode is made up of a first electrode part  
3           and a second electrode part,

4           the electrode forming step including:

5           a first electrode part forming step for adhering the first  
6           electrode part to the main surface of the plate, and

7           a second electrode part forming step for adhering the second  
8           electrode part to the first electrode part so that the second  
9           electrode part is in electrical contact with the first electrode  
10          part,

11          wherein in the second electrode part forming step, of an end  
12          area of the second electrode part at the power supply point and  
13          an end area of the second electrode part opposite to the end area  
14          at the power supply point, at least the opposite end area of the  
15          second electrode part extends beyond the first electrode part and  
16          is directly adhered to the main surface of the plate, with  
17          stronger adhesion than any of the adhesion of the first electrode  
18          part to the main surface of the plate and the adhesion of other

19 areas of the second electrode part to the first electrode part.

1 34. The electrode plate manufacturing method of Claim 29,  
2 wherein the electrode forming step includes  
3 an electrode material applying step for applying an electrode  
4 material which contains glass to the main surface of the plate so  
5 that at least the opposite end area of the electrode contains a  
6 higher proportion of glass than the other areas of the  
7 electrode.

1 35. The electrode plate manufacturing method of Claim 33,  
2 wherein the plate is a glass plate, and  
3 the first electrode part and the second electrode part are  
4 respectively a transparent electrode and a bus line that contains  
5 Ag.

1 36. The electrode plate manufacturing method of Claim 29 for  
2 manufacturing a front panel glass having a plurality of pairs of  
3 display electrodes in a gas discharge panel.

1 37. A method for manufacturing a gas discharge panel having  
2 a front panel glass and a back panel glass, comprising the  
3 electrode plate manufacturing method of Claim 36 for

4 manufacturing the front panel glass.

1 38. A electrode plate manufacturing method for use in a flat  
2 panel display, that forms at least one electrode made up of a  
3 first electrode part and a second electrode part on a plate,  
4 comprising (a) a first electrode part forming step for adhering  
5 the first electrode part to at least one main surface of the  
6 plate, and (b) a second electrode part forming step for adhering  
7 the second electrode part to the first electrode part so that the  
8 second electrode part is in electrical contact with the first  
9 electrode part, characterized in that

10 in the second electrode part forming step, of an end area of  
11 the second electrode part at a power supply point and an end area  
12 of the second electrode part opposite to the end area at the  
13 power supply point, at least the opposite end area of the second  
14 electrode part is adhered to the first electrode part with  
15 stronger adhesion than other areas of the second electrode  
16 part.

1 39. The electrode plate manufacturing method of Claim 38,  
2 wherein at least the opposite end area of the second  
3 electrode part is adhered to the first electrode part using an  
4 adhesive.

1           40. The electrode plate manufacturing method of Claim 38,  
2           wherein the second electrode part contains glass, and  
3           in the second electrode part forming step, an electrode  
4           material which contains glass is applied to the first electrode  
5           part so that at least the opposite end area of the second  
6           electrode part contains a higher proportion of glass than the  
7           other areas of the second electrode part.

1           41. The electrode plate manufacturing method of Claim 38,  
2           wherein the plate is a glass plate, and  
3           the first electrode part and the second electrode part are  
4           respectively a transparent electrode and a bus line that contains  
5           Ag.

1           42. The electrode plate manufacturing method of Claim 38 for  
2           manufacturing a front panel glass having a plurality of pairs of  
3           display electrodes in a gas discharge panel.

1           43. A method for manufacturing a gas discharge panel having  
2           a front panel glass and a back panel glass, comprising the  
3           electrode plate manufacturing method of Claim 42 for  
4           manufacturing the front panel glass.

1           44. An electrode plate manufacturing method for use in a flat  
2 panel display, comprising an electrode forming step for forming  
3 at least one electrode and adhering the electrode to at least one  
4 main surface of a plate,

5           the electrode forming step including:

6           an applying step for applying an electrode material which  
7 contains glass to the main surface of the plate; and

8           a firing step for firing the applied electrode material,

9           wherein the firing step is performed so that, of an end area  
10 of the electrode at a power supply point and an end area of the  
11 electrode opposite to the end area at the power supply point, at  
12 least the opposite end area of the electrode is adhered to the  
13 main surface of the plate with stronger adhesion than other areas  
14 of the electrode.

1           45. An electrode plate manufacturing method for use in a flat  
2 panel display, that forms at least one electrode made up of a  
3 first electrode part and a second electrode part on a plate,  
4 comprising (a) a first electrode part forming step for adhering  
5 the first electrode part to at least one main surface of the  
6 plate, and (b) a second electrode part forming step for adhering  
7 the second electrode part to the first electrode part so that the

second electrode part is in electrical contact with the first electrode part,

the second electrode part forming step including:

an applying step for applying an electrode material which contains glass to the first electrode part; and

a firing step for firing the applied electrode material,

wherein the firing step is performed so that, of an end area of the second electrode part at a power supply point and an end area of the second electrode part opposite to the end area at the power supply point, at least the opposite end area of the second electrode part is adhered to the first electrode part with stronger adhesion than other areas of the second electrode part.